

## **SUBSTITUTE SPECIFICATION**

### **BACKGROUND AND SUMMARY**

- [0001]** The present disclosure relates to a centrifuge having a centrifugal drum and to a stack of separator discs. The present disclosure also relates to separator discs.
- [0002]** Separator discs are conventionally made of high-grade steel. An achievable separation effect when separating a product, such as water or oil, into two phases deserves to be improved.
- [0003]** It is known to pretreat the metal surface of a standard material of the separator discs, for example, by an electrical or manual polishing operation. Although these measures counteract a contamination of the separator discs, they do not significantly increase the separation effect.
- [0004]** The present disclosure relates to increasing the separation effect of a centrifuge of the above-mentioned type in a constructively simple manner when a product is separated into at least two phases, and to also improve the cleaning action of the separator discs.
- [0005]** Accordingly, the separator discs, according to the present disclosure, are, at least in sections, subjected to a surface treatment changing the surface energy.
- [0006]** The present disclosure also creates a separator disc for a centrifuge which, at least in sections, is subjected to a surface treatment changing the surface energy.
- [0007]** As a result, the separating performance or the separation effect is significantly increased or optimized in a constructively simple manner because, by the surface treatment changing the surface energy, the separating performance or separation effect can be adapted precisely to the respective product. That is, the surface energy of the separator discs is changed in a targeted fashion such that, for example, an oil-friendly and a water-unfriendly surface occurs simultaneously. The surface treatment also increases the